



Case report

Sheep shearing and sudden death



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ABSTRACT

A 29-year-old sheep shearer collapsed after walking across a shearing shed floor, holding his hand over an incised wound to his neck. Attempted resuscitation was unsuccessful. At the death scene fine arterial blood spatter was noted and at autopsy a single incised wound to the neck was observed, the patterned edges of which corresponded to the teeth of the shears. Dissection revealed injury to the underlying jugular vein and the mid portion of the common carotid artery. Death was attributed to blood loss from an incised wound of the left side of the neck. This case demonstrates the rare event of an accidental death related to the actions of a sheep. Although a relatively small animal, review of the circumstances and interviews with those present revealed that sudden and unexpected movement of the sheep during shearing had caused the shearer to lose control of his electrical shears resulting in a lethal incised wound to the neck. The blood spatter pattern at the scene was supportive of both witness descriptions and the findings at autopsy.

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1. Introduction

Farming and farm related activities are well recognized causes of significant morbidity and mortality, rated second only to mining in terms of numbers of injuries. Problems involve the use of equipment and vehicles in sometimes suboptimal conditions, a high volume of work in peak seasons, and working in close proximity to livestock.¹ Farm deaths involving animals are usually due to blunt trauma caused by falls, butting or kicking. Injuries to the head and face are most common, followed by the upper torso. Incised and penetrating wounds may also occur from goring, and cases of envenomation from snake bites are also reported, particularly in Asian countries.^{2,3} Deaths related to the handling of sheep are, however, uncommon. The following case is reported to demonstrate a rare event of unexpected death occurring during sheep shearing.

2. Case report

A 29-year-old male called out for help while shearing sheep on a rural property. He had been operating electric shears when a sheep had kicked the shears out of his hand. He was witnessed to walk

across the shearing shed floor, holding his hand over an incised wound to the left side of his neck. A towel had been applied to his neck and he was taken to the local hospital where he was declared dead soon after arrival. Scene examination revealed blood spatter consistent with the application of a hand or towel to the incised vessels (Fig. 1). A partially shorn sheep was also present (Fig. 2).

At autopsy the only evidence of injury was a single 6.5 cm incised wound on the left side of the neck. The wound was approximately 4 cm deep with patterned edges (Fig. 3) corresponding to the teeth of the shears (Fig. 4).

The left sternocleidomastoid muscle had been transected with penetration of the left jugular vein and the mid portion of the left common carotid artery, which could be seen in the base of the wound. There were no underlying organic diseases present that could have caused or contributed to death, and toxicologic screening was negative. Death was attributed to hemorrhage from an incised wound of the left side of the neck.

3. Discussion

Animal-related deaths are not uncommon on farms, being the fourth most common cause of death in the agricultural industry in Australia from 2001 to 2004 in those aged over 55 years, causing 7.1% of deaths. In individuals aged 15 years and older horses were responsible for 3.5% of deaths, followed by cattle at 1.9%.⁴ Kicks to the head and chest were most often fatal due to direct trauma to the

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Fig. 1. Scene examination showing a blood spatter pattern on the floor of the shearing shed consistent with an arterial injury with application of a hand or towel to the incised vessel.



Fig. 2. The partially shorn sheep responsible for kicking the shears from the shearer's hand was present in the shed with other sheep.

brain, heart or lungs with skull fractures and subdural hemorrhage characterizing the cranial trauma.² Other types of occupational deaths caused by animals involve animal caretakers, hunters, veterinarians, zoo keepers, cowboys and rodeo riders.⁵



Fig. 3. The only significant injury at autopsy was a single 6.5 cm incised wound on the left side of the neck. It was approximately 4 cm deep with patterned edges that corresponded to the teeth of the shears (Fig. 4). The incised carotid artery could be observed in the depths of the wound.



Fig. 4. The blood stained shears that caused the lethal wound to the neck showing the sharp teeth, several of which had been bent out of shape by the incident.

A variety of other animals may inflict significant trauma. Pigs may injure from biting or crushing⁶ and exsanguination has resulted from vascular injuries inflicted by wild boar tusks.⁷ Large animals may cause crush injuries. Sheep are not, however, usually associated with lethal injuries; although the case of a farmer who had sustained severe lethal injuries from blunt trauma that included extensive soft tissue bruising, multiple fractures and visceral injuries has been reported due to a ram attack.⁸

An Australian National Farm Injury Data Collection report listed most shearing-related injuries as fractures, sprains (66.4%) and musculoskeletal injuries (15%), usually involving the hand, wrist and back. The majority of injuries were sustained in the mid afternoon with contributing factors being insufficient rest breaks and attempts to get work finished as quickly as possible.⁹ Fatalities on sheep farms usually involve vehicle accidents and other events that are not specifically related to management of the animal, given their relatively small size.¹⁰

As sheep handling is not usually associated with a lethal outcome, the reported case, therefore, demonstrates a rare event, with death occurring as a result of sudden and unexpected movement of a sheep during shearing causing a lethal incised wound to the neck from uncontrolled shears. Correlation of the blood spatter pattern at the scene with the autopsy findings confirmed witness accounts.

Ethical approval

Forensic Science SA.

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Conflict of interest

None.

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